

CLAIMS

1. A therapeutic bed comprising:
a base frame;
a patient support platform rotationally mounted on the base frame;
an electrically powered patient monitoring system connected to the patient support platform; and
a direct electrical connection between the base frame and the patient monitoring system, the direct electrical connection allowing rotation of the patient support platform into a prone position.
2. The therapeutic bed of claim 1 wherein the patient support platform has a neutral supine position, and wherein the direct electrical connection allows about 360 degrees of rotation of the patient support platform in either direction from the neutral supine position.
3. The therapeutic bed of claim 1 wherein the direct electrical connection comprises a cable carrier having electrical cables disposed therein, the cable carrier having a first portion affixed to the base frame and a second portion affixed to the patient support platform.
4. The therapeutic bed of claim 1 wherein the direct electrical connection comprises a flexible cable having a first portion affixed to the base frame and a second portion affixed to the patient support platform.
5. The therapeutic bed of claim 1 further comprising a rotation limiter that limits the rotation of the patient support platform to that which will preserve the direct electrical connection.

6. The therapeutic bed of claim 5 further comprising a pair of sensors mounted to the base frame, wherein the rotation limiter respectively activates one of the pair of sensors depending on the direction of rotation of the patient support platform, and wherein each one of the pair of sensors produces a signal representative of the direction of rotation of the patient support platform when respectively activated by the rotation limiter.

7. A therapeutic bed comprising:
a base frame;
a patient support platform rotationally mounted on the base frame;
a cable for conveying power or data to the patient support platform; and
a cable housing mounted to the patient support platform, the cable housing defining a channel to shield and prevent entanglement of the cable during rotation of the patient support platform.

8. The therapeutic bed of claim 7, wherein the cable housing defines an annular channel.

9. The therapeutic bed of claim 8, wherein the cable housing has a C-shaped cross section.

10. The therapeutic bed of claim 7, wherein a first portion of the cable is fixedly attached to the cable housing.

11. The therapeutic bed of claim 7, wherein the cable comprises a direct electrical connection.

12. The therapeutic bed of claim 7, wherein the cable comprises a plurality of flexible conductive strips surrounding by flexible insulator.

13. The therapeutic bed of claim 7, wherein the cable is a flat ribbon cable.

14. The therapeutic bed of claim 7, further comprising a stationary cover for the cable housing, the cover being affixed to the base frame, wherein the cover, unlike the cable housing, remains stationary during rotation of the patient support platform.

15. The therapeutic bed of claim 14, wherein a first portion of the cable is fixedly attached to the cable housing and a second portion of the cable is fixedly attached to the cover.

16. The therapeutic bed of claim 14, wherein the cover comprises metal to shield the cable from electromagnetic interference.

17. A therapeutic bed comprising:

a base frame;

a patient support platform rotationally mounted on the base frame;

a cable for conveying power or data to the patient support platform;

a cable housing mounted to the patient support platform so that it rotates with the patient support platform, the cable housing defining a channel to shield and prevent entanglement of the cable during rotation of the patient support platform; and

a stationary cover for the cable housing, the cover being affixed to the base frame, wherein the cover remains stationary during rotation of the patient support platform;

wherein a first portion of the cable is fixedly attached to the cable housing and a second portion of the cable is fixedly attached to the cover.

18. The therapeutic bed of claim 17 wherein the patient support platform has a neutral supine position, and wherein the distance between the first and second portions of the cable is sufficiently long to allow about 360 degrees of rotation of the patient support platform in either direction from the neutral supine position.

19. The therapeutic bed of claim 18, wherein the cable comprises a plurality of flexible conductive strips surrounding by flexible insulator.

20. The therapeutic bed of claim 19, wherein the cover comprises metal to shield the cable from electromagnetic interference.